NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 12:29:22 ON 09 MAR 2007

=> file biosis embase medlinw caplus
'MEDLINW' IS NOT A VALID FILE NAME

Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered.

ENTER A FILE NAME OR (IGNORE):

YOU HAVE RECEIVED THIS PROMPT MESSAGE 5 CONSECUTIVE TIMES WITHOUT ENTERING A REQUESTED RESPONSE

The file name entered is incorrect. At the prompt (=>), enter the correct file name or enter one of the following default options:

IGNORE - This option is available when in a multifile environment. It removes the incorrect file from the list and continues accessing the remaining file names entered.

END - This option ends the command and you remain in the previous files entered.

The following files are available:

1MOBILITY - Global Mobility Database from 1906-present

2MOBILITY - Global Mobility Standards Database

ABI-INFORM - Business Information from 1971 to present

ADISCTI - Adis Clinical Trials Insight
ADISINSIGHT - Adis R&D Insight 1986-present
ADISNEWS - Adis Newsletters 1983-present

AEROSPACE - Aerospace and High Technology Database 1962-present

AGRICOLA - AGRICulture OnLine Access from 1970 - present ALUMINIUM - Aluminium Industry Abstracts 1968 to the present

ANABSTR - Analytical Abstracts

ANTE - Abstr. in New Technologies and Eng. 1981 - present

APOLLIT - APPLIED POLYMERS LITERATURE 1973-present

AQUALINE - Aqualine 1960 to the present

AQUASCI - Aquatic Sciences & Fisheries Abstracts 1978-present

AQUIRE - Acquatic Toxicity Information Retrieval

BABS - BEILSTEIN Abstracts 1980-present
BEILSTEIN - BEILSTEIN File of Organic Compounds

BIBLIODATA - GERMAN NATIONAL BIBLIOGRAPHY FROM 1945 - PRESENT

BIOENG - Biotechnology and Bioengineering database 1982 - pres.

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1617SXK

PASSWORD:

NEWS HOURS

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
* * * * * * * * *
                     Welcome to STN International
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS
NEWS
                 "Ask CAS" for self-help around the clock
NEWS
         OCT 23
                 The Derwent World Patents Index suite of databases on STN
                 has been enhanced and reloaded
                 CHEMLIST enhanced with new search and display field
NEWS
         OCT 30
                 JAPIO enhanced with IPC 8 features and functionality
NEWS
         NOV 03
NEWS
         NOV 10
                 CA/CAplus F-Term thesaurus enhanced
NEWS
         NOV 10
                 STN Express with Discover! free maintenance release Version
                 8.01c now available
NEWS
         NOV 20
                 CA/CAplus to MARPAT accession number crossover limit increased
                 to 50,000
         DEC 01
                 CAS REGISTRY updated with new ambiguity codes
NEWS 9
NEWS 10
         DEC 11
                 CAS REGISTRY chemical nomenclature enhanced
NEWS 11
         DEC 14
                 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12
         DEC 14
                 GBFULL and FRFULL enhanced with IPC 8 features and
                 functionality
NEWS 13
         DEC 18
                 CA/CAplus pre-1967 chemical substance index entries enhanced
                 with preparation role
NEWS 14
         DEC 18
                 CA/CAplus patent kind codes updated
NEWS 15
         DEC 18
                 MARPAT to CA/Caplus accession number crossover limit increased
                 to 50,000
NEWS 16
         DEC 18
                 MEDLINE updated in preparation for 2007 reload
NEWS 17
         DEC 27
                 CA/CAplus enhanced with more pre-1907 records
NEWS 18
         JAN 08
                 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19
         JAN 16
                 CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 20
         JAN 16
                 IPC version 2007.01 thesaurus available on STN
NEWS 21
         JAN 16
                 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22
         JAN 22
                 CA/CAplus updated with revised CAS roles
NEWS 23
         JAN 22
                 CA/CAplus enhanced with patent applications from India
NEWS 24
         JAN 29
                 PHAR reloaded with new search and display fields
NEWS 25
         JAN 29
                 CAS Registry Number crossover limit increased to 300,000 in
                 multiple databases
NEWS 26
         FEB 13
                 CASREACT coverage to be extended
NEWS 27
         Feb 15
                 PATDPASPC enhanced with Drug Approval numbers
NEWS 28 Feb 15
                 RUSSIAPAT enhanced with pre-1994 records
NEWS 29 Feb 23 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 30 Feb 26 MEDLINE reloaded with enhancements
NEWS 31 Feb 26
                 EMBASE enhanced with Clinical Trial Number field
NEWS 32
         Feb 26
                 TOXCENTER enhanced with reloaded MEDLINE
NEWS 33
         Feb 26
                 IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 34
         Feb 26
                 CAS Registry Number crossover limit increased from 10,000
                 to 300,000 in multiple databases
             NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
NEWS EXPRESS
```

MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),

STN Operating Hours Plus Help Desk Availability

AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

```
BIOSIS - The BIOSIS Previews(R)/RN File 1969-present
BIOTECHABS - Derwent Biotechnology Resource 1982-present
```

BIOTECHDS - Derwent Biotechnology Resource 1982-present (Subsc.)

BIOTECHNO - BIOTECHNOBASE 1980 TO 2003

CA - The Chemical Abstracts File 1907-present

CABA - CAB ABSTRACTS 1973-present

CAOLD - The pre-1967 Chemical Abstracts File

CAPLUS - The Chemical Abstracts Plus File 1907-present
CASREACT - The Chemical Abstracts Reaction Search Service
CBNB - Chemical Business NewsBase from 1984-present

CEABA-VTB - Chem Eng and Biotech Abstr - Verfahrenstechn Ber 1966-CERAB - Ceramic Abstracts/World Ceramic Abstracts from 1975

CHEMCATS - CHEMICAL CATALOGS ONLINE 1993-to the present CHEMINFORMRX - The CHEMINFORMRX Reaction Search Service

CHEMLIST - Regulated Chemicals Listing

CHEMSAFE - CHEMSAFE - chemical safety information

CIN - The Chemical Industry Notes File for 1974-present
CIVILENG - Civil Engineering Abstracts 1966 to the present

COMPENDEX - COMPENDEX\*PLUS File from 1970 - present

COMPUAB - Computer & Information Systems Abstracts 1981-present

COMPUSCIENCE - COMPUTERSCIENCE FROM 1972-2002

CONFSCI - Conference Papers Index from 1973-present

COPPERLIT - Copper Literature Database

CORROSION - Corrosion Abstracts 1980 to the present CROPB - Derwent Crop Protection File 1968 - 1984

CROPR - Derwent Crop Protection Registry

CROPU - DERWENT CROP PROTECTION FILE 1985 - 2003

CSCHEM - ChemSources - USA and International (Chemicals)

CSCORP - ChemSources - USA and International (Company Directory

CSNB - Chemical Safety News Base from 1981-present
DDFB - Derwent Drug File, Backfile 1964 - 1982
DDFU - Derwent Drug File from 1983 - present

DETHERM - DETHERM-DECHEMA thermophysical property database

DGENE - Derwent Geneseq Database 1981 - present
DISSABS - Dissertation Abstracts from 1861 to present

DJSMDS - Derwent Reaction Search Service DJSM (Subscribers)

DJSMONLINE - Derwent Reaction Search Service DJSM

DKF - The German Automotive Engineering Database 1974-date

DPCI - Derwent Patents Citation Index 1978 to present

DRUGB - Derwent Drug File, Backfile 1964 - 1982 (Subscribers)
DRUGMONOG - IMS Product Monographs (Approved Pharm. Industry Users

DRUGMONOG2 - IMS Product Monographs

DRUGU - Derwent Drug File from 1983-present (Subscribers)

ELCOM - Electronics & Communications Abstracts 1981-present

EMA - Engineered Materials Abstracts File from 1986-present

EMBAL - EMBASE Alert

EMBASE - EMBASE File from 1974-present

ENCOMPLIT - EnCompass Literature File 1964-present (Supporters)
ENCOMPLIT2 - EnCompass Literature File 1964-Present (Non-Supporters

ENCOMPPAT - EnCompass Patent File 1964-present (Supporters)
ENCOMPPAT2 - EnCompass Patent File 1964-Present (Non-Supporters)

ENERGY - DOE ENERGY file from 1974-present

ENVIROENG - Environmental Engineering Abstracts 1990 - present

EPFULL - European Patents Fulltext database
ESBIOBASE - Elsevier Biobase 1994 to the present
FOMAD - FOODLINE MARKET 1982 TO PRESENT

FOREGE - FOODLINE LEGAL

FORIS - Research in social sciences from 1996 - 2005
FRANCEPAT - The French Patent Database from 1966 - present
FRFULL - French Patent Full Text from 1980 - present

FROSTI - FOODLINE SCIENCE 1972 TO PRESENT

FSTA - Food Science Technology Abstracts from 1969 - present GBFULL - United Kingdom (GB) Patents Full Text from 1979 - pres

GENBANK - Genetic Sequence Data Bank

GEOREF - Geological Reference File 1785-present

GMELIN97 - Gmelin Handb. of Inorg. Chem. + Sci. Publ. 1817-1997

HCA - CA File with hour-based pricing

HCAOLD - Pre-1967 CA File with hour-based pricing

HCAPLUS - CAPLUS File with hour-based pricing

HCHEMLIST - Regulated Chemicals Listing with hour-based pricing
HCIN - The CIN File for 1974-present with hour-based pricing

HEALSAFE - Health and Safety Science Abstracts 1981-present

HOME - The default login file. Contains no data.

HSDB - Hazardous Substances Databank

ICONDA - International Construction Database from 1976-present

ICSD - ICSD - Inorganic Crystal Structure Data File
IFICDB - The IFI Comprehensive Database from 1950-present
IFICLS - The IFI Current Patent Legal Status Database
IFIPAT - The IFI Patent Database from 1950-present
IFIREF - The IFI Uniterm and U.S. Class Reference File
IFIUDB - The IFI Uniterm Database from 1950-present

IMSCOPROFILE - IMS Company Profiles 1995-present

IMSCOSEARCH - IMS Company Search

IMSDRUGCONF - IMSworld Pharmaceutical Meetings Diary

IMSDRUGNEWS - IMS Drug News 1991-present

IMSPATENTS - IMS LifeCycle, Patent Focus with Patent Family Data
 IMSPRODUCT - IMS LifeCycle, New Product Focus from 1982-present

IMSRESEARCH - IMS LifeCycle, R&D Focus 1977-present

INFODATA - Information Science and Work from 1976 to present
INIS - International Nuclear Information System 1970-present
INPADOC - The International Patent Database from 1968-present

INSPEC - INSPEC file from 1898 - present

INSPHYS - INSPHYS - Inspec Phys Supplement Backfile (1979 - 1994 IPA - International Pharmaceutical Abstracts 1970-present ITRD - International Transport Research Documentation 1972-da

JAPIO - JAPIO - Japanese Patents from 1976 - present

JICST-EPLUS - JICST-EPlus File on Sci. & Tech. in Japan 1985-present
KOREAPAT - Korean Patent Abstracts Database from 1979 - present
KOSMET - Cosmetic & Perfume Science & Technology 1968-present

LBIBLIO - Bibliodata learning File LCA - The CA Learning File

LCASREACT - The CAS Reaction Search Service Learning File
LDPCI - Derwent Patents Citation Index Learning File

LDRUG - Derwent Drug Learn File LEMBASE - The EMBASE Learning File

LIFESCI - CSA Life Sciences Collection from 1978-present

LINSPEC - Learning INSPEC File

LISA - Library and Information Science Abstracts 1969 - pres.
LITALERT - The Patent Litigation Database from 1973 - present

LMARPAT - The CAS Patent Markush Learning File

LMEDLINE - The MEDLINE Learning File LPATDPA - The PATDPA Learning File LREGISTRY - The Registry Learning File.

LWPI - Derwent World Patents Index Learning File
MARPAT - The CAS Patent Markush File 1988-present
MATBUS - Materials Business File from 1983-present

MDF - Metals Datafile

MECHENG - Mechanical and Transportation Eng. Abs. 1966-

MEDLINE - MEDlars onLINE File from 1960 - present

METADEX - METADEX File from 1966-present
MRCK - The Merck Index Online (SM)
MSDS-CCOHS - CCOHS Material Safety Data Sheets

MSDS-CCOHS - CCOHS Material Safety Data Sheets
MSDS-OHS - Material Safety Data Sheets - OHS
NAPRALERT - Natural Products Alert Database

NLDB - Newsletter Database from 1988 - present

NTIS - U.S.Government Reports Announcements 1964-present NUTRACEUT - Nutraceuticals International 1996 to the present

OCEAN - Oceanic Abstracts from 1964 - current

GEOREF - Geological Reference File 1785-present

GMELIN97 - Gmelin Handb. of Inorg. Chem. + Sci. Publ. 1817-1997

HCA - CA File with hour-based pricing

- Pre-1967 CA File with hour-based pricing HCAOLD HCAPLUS - CAPLUS File with hour-based pricing

- Regulated Chemicals Listing with hour-based pricing HCHEMLIST

- The CIN File for 1974-present with hour-based pricing - Health and Safety Science Abstracts 1981-present HEALSAFE

- The default login file. Contains no data. HOME

- Hazardous Substances Databank HSDB

- International Construction Database from 1976-present ICONDA

- ICSD - Inorganic Crystal Structure Data File ICSD - The IFI Comprehensive Database from 1950-present IFICDB IFICLS - The IFI Current Patent Legal Status Database - The IFI Patent Database from 1950-present IFIPAT - The IFI Uniterm and U.S. Class Reference File IFIREF - The IFI Uniterm Database from 1950-present IFIUDB

IMSCOPROFILE - IMS Company Profiles 1995-present

IMSCOSEARCH - IMS Company Search

IMSDRUGCONF - IMSworld Pharmaceutical Meetings Diary

IMSDRUGNEWS - IMS Drug News 1991-present

- IMS LifeCycle, Patent Focus with Patent Family Data IMSPATENTS IMSPRODUCT - IMS LifeCycle, New Product Focus from 1982-present

IMSRESEARCH - IMS LifeCycle, R&D Focus 1977-present

- Information Science and Work from 1976 to present INFODATA INIS - International Nuclear Information System 1970-present INPADOC - The International Patent Database from 1968-present

- INSPEC file from 1898 - present TNSPEC

INSPHYS - INSPHYS - Inspec Phys Supplement Backfile (1979 - 1994 - International Pharmaceutical Abstracts 1970-present TPA ITRD - International Transport Research Documentation 1972-da

- JAPIO - Japanese Patents from 1976 - present JAPIO

JICST-EPLUS - JICST-EPlus File on Sci. & Tech. in Japan 1985-present - Korean Patent Abstracts Database from 1979 - present KOREAPAT KOSMET - Cosmetic & Perfume Science & Technology 1968-present

- Bibliodata learning File LBIBLIO - The CA Learning File

LCASREACT - The CAS Reaction Search Service Learning File - Derwent Patents Citation Index Learning File LDPCT

- Derwent Drug Learn File LDRUG - The EMBASE Learning File LEMBASE

LIFESCI - CSA Life Sciences Collection from 1978-present

LINSPEC - Learning INSPEC File

T.T.S.A. - Library and Information Science Abstracts 1969 - pres. LITALERT - The Patent Litigation Database from 1973 - present

- The CAS Patent Markush Learning File LMARPAT

- The MEDLINE Learning File LMEDLINE - The PATDPA Learning File LPATDPA - The Registry Learning File. LREGISTRY

- Derwent World Patents Index Learning File LWPI - The CAS Patent Markush File 1988-present MARPAT - Materials Business File from 1983-present MATBUS

MDF - Metals Datafile

- Mechanical and Transportation Eng. Abs. 1966-MECHENG

- MEDlars onLINE File from 1960 - present MEDLINE

- METADEX File from 1966-present METADEX - The Merck Index Online (SM) MRCK MSDS-CCOHS - CCOHS Material Safety Data Sheets

MSDS-OHS - Material Safety Data Sheets - OHS - Natural Products Alert Database NAPRALERT NLDB

- Newsletter Database from 1988 - present - U.S.Government Reports Announcements 1964-present NTIS

NUTRACEUT - Nutraceuticals International 1996 to the present

OCEAN - Oceanic Abstracts from 1964 - current PAPERCHEM2 - Elsevier Engineering Information, Inc. File 1967 - pre

PASCAL - PASCAL 1977 to the present

PATDD - East German Patents from 1982-present

PATDPA - The German Patent Database from 1968-present

PATDPAFULL - The German Full-Text Patent Database from 1987-present PATDPASPC - German SPC for Drugs and Plant Protecting Agents 1992-PATIPC - International Patent Classification and Catchword Inde

PCTFULL - WIPO/PCT Patents Full Text 1978 to the present
PCTGEN - PCTGEN: World Patent Application Biosequences
PHAR - Pharmaprojects drug development status file
PHARMAML - Pharma Marketletter 1992 to the present

PHIC - Pharmaceutical & Healthcare Industry News (Current)
PHIN - Pharmaceutical & Healthcare Industry News Archive 1980

PIRA - PIRA & PAPERBASE Database from 1975 POLLUAB - Pollution Abstracts from 1970-present

PROMT - PROMT from 1978 - present

PROUSDDR - Drug Data Report from Prous Science

PS - Pharmaceutical Substances

RAPRA - Rubber, Plastics, Polymer Composites 1972 - present

RDISCLOSURE - Research Disclosure 1960 to the present REGISTRY - The CAS Registry File of substances

RSWB - Regional planning and building construction RTECS - Registry of Toxic Effects of Chemical Substances

RUSSIAPAT - RUSSIAN PATENT ABSTRACTS DATABASE FROM 1924 - PRESENT

SCISEARCH - ISI Science Citation Index from 1974 - present

SOLIDSTATE - Solid State and Superconductivity Abstracts from 1981 SOLIS - German literature in social sciences 1945-present

SPECINFO - Spectral Database Information System

STNGUIDE - Descriptive information about STN databases

STNMAIL - STN Electronic Mail Service

SYNTHLINE - Synthline Drug Synthesis Database 1984-present
TEMA - TEMA: Technology and Management 1990 to the present
TEXTILETECH - Textile Technology Digest from 1978 to the present

TOXCENTER - Toxicology Center from 1907 - present

TRIBO - TRIBOLOGY INDEX (Friction, Wear, Lubrication) 1972-pres.

TULSA - Petroleum Abstracts 1965-present

TULSA2 - Petroleum Abstracts 1965-present (Non-subscribers)
UFORDAT - Environment Research in Progress from 1974 - present

ULIDAT - Environmental Literature from 1976-present

USAN - USAN - United States Adopted Names

USPAT2 - U.S. Patents Latest Publications from 2001 - present USPATFULL - U.S. Patents Original Publications from 1971 - present

VETB - Derwent Veterinary Drug File 1968 - 1982
VETU - Derwent Veterinary Drug File 1983 - 2001
WATER - Water Resource Abstracts 1967 to the present

WELDASEARCH - Weldasearch 1967 to the present

WPIDS - Derwent World Patents Index 1963 - present (Subscr.)

WPIFV - WPIFV - DERWENT WORLD PATENT INDEX FIRST VIEW WPINDEX - Derwent World Patents Index 1963 - present

WPIX - DERWENT WPI WITH EXTENSION ABSTRACTS 1963 - PRESENT WSCA - World Surface Coatings Abstracts 1976 - present

WTEXTILES - WORLD TEXTILES 1970 TO THE PRESENT

ZCA - CA File with zero connect hour pricing

ZCAPLUS - CAPLUS File with zero connect hour pricing

ZREGISTRY - Zero connect hour REGISTRY

To look at detailed information about a file, first access that file using the FILE command. Enter "HELP CONTENT" at an arrow prompt (=>) for a general description of the file. Enter "HELP DIRECTORY" for a list of help messages available for that file. The database summary sheet is also available for the file in STNGUIDE. Enter "FILE STNGUIDE" at an arrow prompt (=>), then search the file name in the /DBN search field. You can then display the search fields, display fields, file content, sources, etc.

All files are available for multifile searching except HOME, STNGUIDE, STNMAIL, and the Learning Files. IF YOU REQUIRE FURTHER HELP, PLEASE CONTACT YOUR LOCAL HELP DESK ENTER A FILE NAME OR (IGNORE): ENTER A FILE NAME OR (IGNORE): ENTER A FILE NAME OR (IGNORE): ENTER A FILE NAME OR (IGNORE):end => file caplus medline biosis embase COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.42 0.42 FILE 'CAPLUS' ENTERED AT 12:30:17 ON 09 MAR 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'MEDLINE' ENTERED AT 12:30:17 ON 09 MAR 2007 FILE 'BIOSIS' ENTERED AT 12:30:17 ON 09 MAR 2007 Copyright (c) 2007 The Thomson Corporation FILE 'EMBASE' ENTERED AT 12:30:17 ON 09 MAR 2007 Copyright (c) 2007 Elsevier B.V. All rights reserved. => e extracoporeal 1 EXTRACOPORE/BI E2 1 EXTRACOPOREA/BI EЗ 124 --> EXTRACOPOREAL/BI EXTRACOPPOREAL/BI E41 E5 1 EXTRACOPREAL/BI EXTRACOPROEAL/BI Ε6 1 E7 EXTRACOPROREAL/BI 4 EXTRACOPRPOREAL/BI E8 1 Ε9 19 EXTRACOPY/BI E10 6 EXTRACOPYING/BI E11 5 EXTRACOR/BI E12 1 EXTRACORAL/BI => s e3 124 EXTRACOPOREAL/BI => s aromatic 614937 AROMATIC => s trifunctional 5500 TRIFUNCTIONAL => s L2 and L3 . 317 L2 AND L3 => s biotin

86694 BIOTIN

1 L4 AND L5

=> s L4 and L5

=> d 1 L6 ibib abs

ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2000:861452 CAPLUS DOCUMENT NUMBER: 134:29252 TITLE: Synthesis of water soluble multi-biotin -containing compounds for use in targeting biotin-binding proteins University of Washington, USA PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 68 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION: KIND DATE APPLICATION NO. PATENT NO. WO 2000072802 A2 20001207 WO 2000-US15081 20000601 WO 2000072802 A3 20020207 W: AU, BR, CA, IL, JP, KR, MX, RU RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE A2 20020417 EP 2000-938025 EP 1196199 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI US 1999-324267 A 19990602 WO 2000-US15081 W 20000601 PRIORITY APPLN. INFO.: Syntheses of water soluble discrete multi-biotin-containing compds. with at least three biotin moieties are disclosed. The water soluble biotin-containing compds. may addnl. comprise one or more moieties that confer resistance to cleavage by biotinidase or that is cleavable in vitro or in vivo. The discrete multi-biotin-containing compds. may include a reactive moiety that provides a site for reaction with yet another moiety, such as a targeting, diagnostic or therapeutic functional moiety. Biotinylation reagents comprising water soluble linker moieties are also disclosed and may addnl. comprise a biotinidase protective group. Methods for amplifying the number of sites for binding biotin-binding proteins at a selected target using multibiotin compds. are also disclosed. => e aminoisophthalic 2 AMINOISOPHTHALDIAMIDE/BI AMINOISOPHTHALDIAMIDES/BI E3 493 --> AMINOISOPHTHALIC/BI 13 AMINOISOPHTHALIC/BI
2 AMINOISOPHTHALONITRILE/BI
2 AMINOISOPHTHALONITRILES/BI
11 AMINOISOPHTHALOYL/BI
1 AMINOISOPHTHALOYLBIS/BI
1 AMINOISOPHTHALOYLDIGLYCINE/BI
1 AMINOISOPHTHALYLIDENE/BI
1 AMINOISOPHTHATIC/BI
1 AMINOISOPHTHATO/BI
1 AMINOISOPHTHATO/BI
1 AMINOISOPHTHIN/BI E4 E5 E6 E7 E8 E9 E10 E11 E12 => s e3 493 AMINOISOPHTHALIC/BI => s biotin 86694 BIOTIN

=> dup rem L9

=> s L7 and L8

13 L7 AND L8

PROCESSING COMPLETED FOR L9 11 DUP REM L9 (2 DUPLICATES REMOVED) => s L3 and L5 79 L3 AND L5 => dup rem L11 PROCESSING COMPLETED FOR L11

44 DUP REM L11 (35 DUPLICATES REMOVED)

=> s L12 and aromatic

1 L12 AND AROMATIC

=> d L10 1-11 ibib abs

L10 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

2006:1124832 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:443804

TITLE: Amphiphilic polymers and methods of use thereof INVENTOR(S):

Colton, Clark K.; Watterson, Arthur; Kumar, Rajesh; Parmar, Virinder S.; Fisher, Robert; Kumar, Jayant

PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA

SOURCE: PCT Int. Appl., 127pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                       KIND DATE
                                        APPLICATION NO.
                        ____
                              _____
                                         -----
                              20061026 WO 2006-US14483
                        A2
    WO 2006113666
                                                                20060417
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
            KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
            MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
            SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
            VN, YU, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM
                              20061130
    US 2006269479
                        Α1
                                          US 2006-405012
                                                                20060417
PRIORITY APPLN. INFO.:
                                          US 2005-672533P
                                                            P 20050419
                                          US 2005-672856P
                                                            P 20050420
                                                            P 20051103
                                          US 2005-732633P
```

AΒ The present invention relates to amphiphilic polymers, and micelles and compns. comprising the same, and their use in a variety of biol. settings, including imaging, targeting drugs, or a combination thereof for diagnostic and therapeutic purposes. A PEG oligomer, for example, is polymerized with a trifunctional linking mol. (di-Me 5-hydroxyisophthalate) using lipase B which leaves the phenolic hydroxy group available for further chemical reaction. The PEG may be further modified with perfluorododecanol, fluorescent probes, targeting peptides, etc. resulting multimodal agent is used for imaging tumors, such as human epithelial cell adenocarcinomas which overexpress uMUC-1 antigen.

L10 ANSWER 2 OF 11 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN 2002:583437 BIOSIS ACCESSION NUMBER:

DOCUMENT NUMBER: PREV200200583437

TITLE: Trifunctional conjugation reagents. Reagents that contain a

biotin and a radiometal chelation moiety for

application to extracorporeal affinity adsorption of

radiolabeled antibodies.

AUTHOR(S): Wilbur, D. Scott [Reprint author]; Chyan, Ming-Kuan;

Hamlin, Donald K.; Kegley, Brian B.; Nilsson, Rune;

Sandberg, Bengt E. B.; Brechbiel, Martin

CORPORATE SOURCE: Department of Radiation Oncology, University of Washington,

2121 N. 35th Street, Seattle, WA, 98103-9103, USA

dswilbur@u.washington.edu

SOURCE: Bioconjugate Chemistry, (September-October, 2002) Vol. 13,

No. 5, pp. 1079-1092. print.

CODEN: BCCHES. ISSN: 1043-1802.

DOCUMENT TYPE: A

Article English

LANGUAGE: ENTRY DATE:

Entered STN: 13 Nov 2002

Last Updated on STN: 13 Nov 2002

A method of removing radiolabeled monoclonal antibodies (mAbs) from blood using a device external to the body, termed extracorporeal affinity-adsorption (EAA), is being evaluated as a means of decreasing irradiation of noncancerous tissues in therapy protocols. The EAA device uses an avidin column to capture biotinylated-radiolabeled mAbs from circulated blood. In this investigation, three trifunctional reagents have been developed to minimize the potential deleterious effect on antigen binding brought about by the combination of radiolabeling and biotinylation of mAbs required in the EAA approach. The studies focused on radiolabeling with 111In and 90Y, so the chelates CHX-A"-DTPA and DOTA, which form stable attachments to these radionuclides, were incorporated in the trifunctional reagents. The first trifunctional reagent prepared did not incorporate a group to block the biotin cleaving enzyme biotinidase, but the two subsequent reagents coupled aspartic acid to the biotin carboxylate for that purpose. All three reagents used 4,7,10-trioxa-1,13-tridecanediamine as water-soluble spacers between an aminoisophthalate core and the biotin or chelation group. The mAb conjugates were radioiodinated to evaluate cell binding as a function of substitution. Radiologination was used so that a direct comparison with unmodified mAb could be made. Evaluation of the number of conjugates per antibody versus cell binding immunoreactivities indicated that minimizing the number of conjugates was best. Interestingly, a decrease of radioiodination yield as a function of the number of isothiocyanate containing conjugates per mAb was noted. The decreased yields were presumably due to the presence of thiourea functionality formed in the conjugation reaction. Radiolabeling with 111In and 90Y was facile at room temperature for conjugates containing the CHX-A", but elevated temperature (e.g., 45degreeC) was required to obtain good yields with the DOTA chelate. Stability of 90Y labeled mAb in serum, and when challenged with 10 mM EDTA, was high. However, challenging the 90Y labeled mAb with 10 mM DTPA demonstrated high stability for the DOTA containing conjugate, but low stability for the CHX-A" containing conjugate. Thus, the choice between these two chelating moieties might be made on requirements for facile and gentle labeling versus very high in vivo stability. Application of the trifunctional biotinylation reagents to the blood clearance of labeled antibodies in EAA is under investigation. The new reagents may also be useful for other applications.

L10 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:923565 CAPLUS

DOCUMENT NUMBER: 136:42919

TITLE: Biotin derivatives for an extracorporeal

device

INVENTOR(S): Sandberg, Bengt; Wilbur, Scott; Nilsson, Rune
PATENT ASSIGNEE(S): Mitra Medical Technology AB, Swed.; University of

Washington

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT	NO.			KIND DATE				APPL	ICAT	ION	NO.		D.	ATE		
	2001 2001		57		A2				,	WO 2	001-	SE13	74	<u>-</u>	2	0010	618
US CA	W: RW: 2002 2412	AE, CO, GM, LS, RO, UZ, GH, DE, BJ, 1599	AG, CR, HR, LT, RU, VN, GM, DK, CF,	AL, CU, HU, SD, YU, KE, ES, CG,	AM, CZ, ID, LV, SE, ZA, LS, FI, CI, A1	AT, DE, IL, MA, SG, ZW MW, FR, CM,	AU, DK, IN, MD, SI, MZ, GB, GA, 2002	AZ, DM, IS, MG, SK, SD, GR, GN, 1031	DZ, JP, MK, SL, SL, IE, GW,	EC, KE, MN, TJ, SZ, IT, ML, US 2 CA 2		ES, KP, MX, TR, UG, MC, NE, 8812	FI, KR, MZ, TT, ZW, NL, SN, 13	GB, KZ, NO, TZ, AT, PT, TD,	GD, LC, NZ, UA, BE, SE, TG	GE, LK, PL, UG, CH, TR,	GH, LR, PT, US, CY, BF,
	2001 1289																
EP 1289563 R: AT, BE, CH, IE, SI, LT, BR 2001011726 JP 2004503299 HU 200401953 RU 2279896 NO 2002005931 US 2004052784 RIORITY APPLN. INFO.:				LT,	LV, A T A2 C2 A A1	FI,	RO, 2003 2004 2004 2006 2003	MK, 0527 0205 1228 0720 0214 0318	CY,	AL, BR 2 JP 2 HU 2 RU 2 NO 2 US 2 SE 2 US 2		1172 5100 1953 1010 5931 3111 2287 2166	6 39 60 50 25P	i	2 2 2 2 2 2 2 2 A 2 P 2	0010 0010 0010 0010 0021 0030	618 618 618 618 211 423 616 707
 -		, ,						_					'. ·				

AB A method for the conditioning of an extracorporeal device is described, as well as a method for extracorporeal extraction of toxic material from mammalian body fluids in connection with diagnosis or treatment of a mammalian condition or disease. The methods comprise (i) a solution containing a reagent comprising biotin moieties, such as natural biotin or its derivs., and a toxin-binding moiety, (ii) linkers and a trifunctional crosslinking moiety, and (ii) an extracorporeal device comprising said reagent. For example, a dibiotin compound, 1-isothiocyanato-3,5-bis-(13'-biotinamidyl-4',7',10'-trioxatridecanamidyl)-aminoisophthalate was prepared and conjugated with a toxin-binding mol., i.e., monoclonal antibody 53-6A2. A dibiotin-toxin-binding conjugate was used for conditioning of an avidin-agarose column suitable for removal of toxins from blood.

```
L10 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
```

ACCESSION NUMBER: 1999:109400 CAPLUS

DOCUMENT NUMBER: 130:177546

TITLE: Methods of receptor modulation and therapeutic and

diagnostic uses therefor

INVENTOR(S): Morgan, A. Charles, Jr.; Wilbur, D. Scott

PATENT ASSIGNEE(S): Receptagen Corporation, USA; University of Washington

SOURCE: U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 224,831,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5869465	А	19990209	US 1995-406194	19950316
CA 2187346	A1	19951019	CA 1995-2187346	19950407

```
WO 9527723
                          A1
                                19951019
                                            WO 1995-US4404
                                                                    19950407
        W: AU, CA, JP, KR, NO, NZ
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    AU 9522835
                          Α
                                19951030
                                            AU 1995-22835
                                                                    19950407
                                                                    19950407
    EP 754189
                          A1
                                19970122
                                            EP 1995-916284
    EP 754189
                          В1
                                20021009
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
     JP 10502334
                         T
                                19980303
                                            JP 1995-526497
                                                                   19950407
                         T
    AT 225799
                                20021015
                                            AT 1995-916284
                                                                   19950407
    US 5840712
                         Α
                                19981124
                                            US 1995-545151
                                                                   19951019
     US 6083926
                                20000704
                                            US 1998-200422
                                                                   19981123
PRIORITY APPLN. INFO.:
                                            US 1994-224831
                                                               B2 19940408
                                            US 1995-406191
                                                               A 19950316
                                            US 1995-406192
                                                               A 19950316
                                            US 1995-406194
                                                               A 19950316
                                            WO 1995-US4404
                                                               W 19950407
                                            US 1995-545151
                                                               A3 19951019
AΒ
    Receptor-modulating agents capable of modulating cell surface receptors by
    affecting the cell-surface receptor trafficking pathway are utilized for
    the treatment and diagnosis of a variety of disorders in warm-blooded
    animals, including neoplastic disorders. The receptor-modulating agents
    are comprised of a covalently bound rerouting moiety and targeting moiety.
     Synthesis of several receptor-modulating agents using different functional
     classes of rerouting moieties is described. More specifically, a series
     of examples are presented which employ vitamin B12 as a targeting moiety
     in a receptor-modulating agent.
REFERENCE COUNT:
                               THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
                         19
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L10 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER:
                         1999:668186 CAPLUS
DOCUMENT NUMBER:
                         132:46430
TITLE:
                        Molecular Necklaces. Cross-Linking Hemoglobin with
                       Reagents Containing Covalently Attached Ligands
AUTHOR(S):
                         Crapatureanu, Sanda; Serbanescu, Ruxandra; Brevitt,
                         Sharon Bisley; Kluger, Ronald
CORPORATE SOURCE:
                         Lash Miller Laboratories Department of Chemistry,
                         University of Toronto, Toronto, ON, M5S 3H6, Can.
SOURCE:
                         Bioconjugate Chemistry (1999), 10(6), 1058-1067
                         CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER:
                        American Chemical Society
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                        English
                        CASREACT 132:46430
OTHER SOURCE(S):
    Hb can be cross-linked and converted to a bioconjugate in one step by a
    mol. necklace, a reagent that contains two reacting sites and a pendant
     ligand. The compound to be conjugated is activated as an electrophile.
                                                                               The
     activated material is then combined with a reagent (3-
     aminoisophthalic acid) that contains a nucleophilic (amino) site
     and two latent (carboxyl) sites. The latent sites of the product are
     activated as 3,5-dibromosalicylates to produce the cross-linker.
     Illustrative examples of crosslinking are presented with pendant
    biotin [bis(3,5-dibromosalicyl) N-biotinyl-5-aminoisophthalate]
     and pendant N-trifluoroacetyl-L-isoleucylglycine [bis(3,5-dibromosalicyl)
     N-(N-trifluoroacetyl-L-isoleucylglycyl)-5-aminoisophthalate]. The
     resulting modified Hbs contain two principal types of cross-link:
     (\beta-Lys-82-\beta'-Lys-82) and (\alpha-Lys-99-\alpha'-Lys-99). The
     functional properties of the modified Hb containing biotin in a
     (\beta-Lys-82-\beta'-Lys-82) cross-link are (pH 7.4, 55 \mu M heme, 25
     ^{\circ}C, 0.1 M chloride, and 50 mM Bis-Tris) P50 = 4.9 Torr, n50 = 3.0,
     values which are approx. the same as for native Hb. The results of
     affinity chromatog. of the biotinylated cross-linked Hb using a column of
     immobilized avidin indicate that the pendant biotin is much less
```

accessible than free biotin. We suggest that the results are

consistent with the pendant species being strongly attracted into the  $\operatorname{Hb}$ 

environment.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:776598 CAPLUS

DOCUMENT NUMBER: 130:38641

TITLE: Preparation of water soluble vitamin B12 as

antiinflammatory receptor modulating agents

INVENTOR(S): Morgan, A. Charles, Jr.; Wilbur, D. Scott; Pathare,

Pradip M.

PATENT ASSIGNEE(S):

Receptagen Corporation, USA; University of Washington U.S., 66 pp., Cont.-in-part of U.S. Ser. No. 406,191.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

]	PATENT NO.					KIND DATE				APPL	ICAT		D	ATE				
		5840° 5739:						1998 1998			US 1	995-	5451	51		1:	9951 9950	
						A					02 I	995-	4061	92		1		
		5840				A		1998			05 I	995-	400T	91		Τ.	9950	
		5869				A		1999								_	9950	
١	WO	9714				A1		1997			-			-		19961018 CU, CZ, DE,		
		W:	-															
					•			GE,			•					•		
				•		•		LV,	•			•		•		•		
			RO,	RU,	SD,	SE,	SG,	SI,	SK,	ΤJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,	VN,
					•	- •		MD,										
		R₩:	ΚE,	LS,	MW,	SD,	SZ,	UG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FΙ,	FR,	GB,	GR,
			ΙE,	IT,	LU,	MC,	NL,	PT,										
	ΑU	9677	182			Α		1997	0507		AU 1	996-	7718.	2		1	9961	018
	EΡ	1015						2000									9961	•
		R:	AT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,															
]	ΝZ	3231	27			Α		2001	0330		NZ 1	996-	3231	27		1	9961	018
1	US	6083	926			Α		2000	0704		US 1	998-	2004	22		1	9981	123
PRIOR	ΙTΥ	APP:	LN.	INFO	. :						US 1	994-	2248	31 ়	]	B2 1	9940	408
											US 1	995-	4061	91	1	A2 1	9950	316
											US 1	995-	4061	92	1	A2 1	9950	316
											US 1	995-	4061	94	1	A2 1	9950	316
										WO 1995-US4404						A2 1	9950	407
											US 1	995-	5451	51		A 1	9951	019
									US 1995-545496						A 1	9951	019	
										WO 1996-US16672						W 1	9961	018
	~ ~							1 2 2	2004	4								

OTHER SOURCE(S): MARPAT 130:38641

AB Vitamin B12 antiinflammatory receptor modulating agents capable of modulating cell surface receptors by affecting the cell surface receptor trafficking pathway are disclosed. The vitamin B12 receptor modulating agents are comprised of a covalently bound rerouting moiety and targeting moiety linked by a water-solubilizing linker. Synthesis of a vitamin B12/biotin conjugate and fusion protein receptor modulating agent is reported.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:236288 CAPLUS

DOCUMENT NUMBER: 128:295003

TITLE: Preparation of biotinylated cobalamins as antiinflammatory agents and transcobalamin II

receptors

INVENTOR(S): Wilbur, D. Scott; Pathare, Pradip M.; Morgan, A.

Charles, Jr.

PATENT ASSIGNEE(S): University of Washington, USA; Receptagen Corp.

SOURCE: U.S., 58 pp., Cont.-in-part of U.S. Ser. No. 224,831,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PA	ATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US	5 5739287	A	19980414	US 1995-406192	19950316
CA	A 2187346	A1	19951019	CA 1995-2187346	19950407
WO	9527723	A1	19951019	WO 1995-US4404	19950407
	W: AU, CA, JP,	KR, NO	, NZ		
	RW: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IE, IT, LU, MC, N	L, PT, SE
AU				AU 1995-22835	
EP	754189	A1	19970122	EP 1995-916284	19950407
EP	754189	B1	20021009		
	R: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IE, IT, LI, LU, M	C, NL, PT, SE
· JP	2 10502334	${f T}$	19980303	JP 1995-526497	19950407
	225799	T		AT 1995-916284	19950407
US	5 5840712	A	19981124	US 1995-545151	19951019
US	6083926	A	20000704	US 1998-200422	19981123
PRIORIT	Y APPLN. INFO.:			US 1994-224831 B2	19940408
				US 1995-406191 A	19950316
				US 1995-406192 A	19950316
	•			US 1995-406194 A	19950316
				WO 1995-US4404 W	19950407
				US 1995-545151 A3	19951019
AB A	biotinylated coba	lamin,	formed from	a vitamin B12 mol. coup	led to a

AB A biotinylated cobalamin, formed from a vitamin B12 mol. coupled to a biotin mol., is disclosed. In a preferred embodiment, the vitamin B12 mol. is cyanocobalamin. The biotin mol. can also be coupled to a rerouting moiety, optionally through a biotin binding protein such as avidin or streptavidin. The biotinylated cobalamin binds to a cell surface receptor, is invaginated, and once internalized affects the receptor trafficking pathway.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:377886 CAPLUS

DOCUMENT NUMBER: 126:343813

TITLE: Preparation of vitamin B12 receptor modulating agents INVENTOR(S): Morgan, A. Charles, Jr.; Wilbur, D. Scott; Pathare,

Pradip M.

PATENT ASSIGNEE(S): Receptagen Corporation, USA; University of Washington;

Morgan, A. Charles, Jr.; Wilbur, D. Scott; Pathare,

Pradip, M.

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

P.	PATENT NO.				KIND DATE					APPL	ICAT		Di	ATE			
W	WO 9714711			A1 19970424			WO 1996-US16672							9961	018		
		W:					BA, GE,				•	-	-		•		

```
LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG
     US 5840712
                          Α
                                 19981124
                                             US 1995-545151
                                                                    19951019
     AU 9677182
                                 19970507
                                             AU 1996-77182
                          Α
                                                                    19961018
     EP 1015475
                                20000705
                                            EP 1996-940247
                          A1
                                                                    19961018
         R:
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     NZ 323127
                                 20010330
                                             NZ 1996-323127
                          Α
                                                                    19961018
PRIORITY APPLN. INFO.:
                                             US 1995-545151
                                                                 A 19951019
                                             US 1995-545496
                                                                 A 19951019
                                             US 1994-224831
                                                                 B2 19940408
                                             US 1995-406191
                                                                 A2 19950316
                                             US 1995-406192
                                                                 A2 19950316
                                             US 1995-406194
                                                                 A2 19950316
                                             WO 1996-US16672
                                                                 W 19961018
                         MARPAT 126:343813
OTHER SOURCE(S):
```

Vitamin B12 receptor modulating agents capable of modulating cell surface receptors by affecting the cell surface receptor trafficking pathway are disclosed. The vitamin B12 receptor modulating agents are comprised of a covalently bound rerouting moiety and targeting moiety linked by a water-solubilizing linker.

L10 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

1997:251007 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 126:238622

TITLE: A new achiral linker reagent for the incorporation of

multiple amino groups into oligonucleotides

INVENTOR(S): Behrens, Carsten; Petersen, Kenneth H.; Egholm,

Michael; Nielsen, John; Dahl, Otto

PATENT ASSIGNEE(S):

Behrens, Carsten, Den.; Petersen, Kenneth H.; Egholm,

Michael; Nielsen, John; Dahl, Otto

PCT Int. Appl., 34 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAS	PATENT NO.						KIND DATE				APPLICATION NO.						
WO	9705	156			A1		1997	0213		WO 1	 996-	DK33	0		1	9960	726
	W:	AL,	AM,	ΑT,	AT,	ΑU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	CZ,
	DE, DE, DE					EE,	EE,	ES,	FI,	FI,	GB,	GΕ,	HU,	·IL,	IS,	JP,	ΚE,
	KG, KP, KR					LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
	NO, NZ																
	RW:	KE,	LS,	MW,	SD,	SZ,	ŪG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FI,	FR,	GB,	GR,
		ΙE,	ΙΤ,	LU,	MC,	NL,	PT										
AÜ	AU 9665140						1997	0226		AU 1	996-	6514	0		1	9960	726
PRIORITY APPLN. INFO.:									DK 1995-863					i	A 1	9950	727
								WO 1996-DK330					1	W 1	9960	726	
OTHER SOURCE(S):					MARPAT 126:2386				22								

GΙ

AB Functionalized achiral linker reagents, e.g. I [n = 1-3; Z = bond, C1-C10]chain optionally interrupted by 1-5 heteroatoms; R1 = H-phosphonate, phosphoramidite; R2 = amino protecting groups, e.g., PhCH2O2C, Me3CO2C, 9-fluorenylmethoxycarbonyl, allyloxycarbonyl, F3CCO, phthaloyl and reporter groups, e.g., fluorescein, dansyl, biotin, digoxigenin, N-oxyl-4,4-dimethyloxazolidine, N-oxyl-2,2,5,5-tetramethylpyrrolidine, texas red, tetramethylrhodamine, etc.; R3 = H, hydroxy protecting group, e.g., 4,4'-dimethoxytrityl, 9-fluorenylmethoxycarbonyl, etc.] were prepared and used to incorporate multiple primary amino groups or reporter groups into oligodeoxyribonucleotides following the phosphoramidite methodol. is possible to substitute any deoxyribonucleotide, deoxynucleotide, or nucleotide with the linker in conventional phosphoramidite or H-phosphonate DNA syntheses. Thus, the bis(hydroxymethyl)benzylamine I (Z = CH2; R1 = H; R2 = 9-fluorenylmethylcarbonyl; R3 = 4,4'-dimethoxytrityl; n = 1) was prepared from 5-nitroisophthalic acid in seven steps. Application of this reagent in standard solid-support phosphoramidite oligodeoxyribonucleotide preparation methodol. gave, e.g., 5'-GTAGATCACT-P(0) (OH) OCH2-X-CH2OH-3' [X = 1,3-(5-H2NCH2)C6H3] with 99.5% couplingefficiency.

L10 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:155067 CAPLUS

DOCUMENT NUMBER: 126:207193

TITLE: Synthesis of Cobalamin Dimers Using Isophthalate

Crosslinking of Corrin Ring Carboxylates and Evaluation of Their Binding to Transcobalamin. 2

AUTHOR(S): Pathare, Pradip M.; Wilbur, D. Scott; Hamlin, Donald

Rathare, Pradip M.; Wilbur, D. Scott; Hamlin, Donald K.; Heusser, Shannon; Quadros, Edward V.; McLoughlin,

Patricia; Morgan, A. Charles

CORPORATE SOURCE: Department of Radiation Oncology, University of

Washington, Seattle, WA, 98195, USA

SOURCE: Bioconjugate Chemistry (1997), 8(2), 161-172

CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Several cobalamin (Cbl) dimers have been prepared for evaluation as potential antiproliferative agents in the treatment of AIDS-related lymphoma. The Cbl dimers were synthesized by crosslinking Cbl carboxylates, produced by acid hydrolysis of the b-, d-, and e-propionamide side chains of cyanocobalamin (CN-Cbl), through an isophthalate mol. Linking mols. were used between the Cbl carboxylates and the isophthalate moiety. The linkers were incorporated to provide a distance between the two Cbl mols. such that the dimeric Cbls might bind two mols. of transcobalamin II (TCII), the Cbl transport protein in plasma. Initially, the linking moiety used was 1,12-diaminododecane, but the resulting dimers had low aqueous solubility. To improve the solubility of

the

dimers, 4,7,10-trioxa-1,13-tridecanediamine was employed as the linking moiety. This improved the water solubility of the dimers considerably, while retaining the distance between the Cbl mols. at 41-42 Å (fully extended). To introduce addnl. substitution on Cbl dimers, 5-aminoisophthalic acid was used as the crosslinking reagent. P-Iodobenzoyl and p-(tri-n-butylstannyl)benzoyl conjugates of 5-aminoisophthalate were synthesized and used to prepare Cbl dimers. The stannylbenzoyl-conjugated Cbl dimers were prepared as precursors to be used in radioiodination reactions, and the iodobenzoyl-conjugated Cbl dimers were prepared as HPLC stds. for the radioiodinated product. Attempts to iodinate/radioiodinate the stannylbenzoyl Cbl dimers were unsuccessful. Although an explanation for this is not readily apparent, the failure to react may be due to the lipophilicity of the linker used and the steric environment of the two Cbl moieties. A biotinylated derivative of 5-aminoisophthalate was also synthesized and used to prepare

biotinylated-Cbl dimers. In a competitive rhTCII binding assay with [57Co]CN-Cbl, Cbl dimers containing the lipophilic diaminododecane linking moiety had decreased binding avidities compared to those of Cbl monomers substituted at the same corrin ring carboxylate. However, Cbl dimers containing the water-solubilizing trioxadiamine linker appeared to have avidities similar to those of the Cbl monomers.

REFERENCE COUNT:

27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:225167 CAPLUS

DOCUMENT NUMBER: 114:225167

TITLE: Method of assaying substances and immunoassay element

employing  $\beta$ -D-galactosidase

INVENTOR(S): Onishi, Akira; Kawakatsu, Satoshi; Ito, Tsukasa;

Takahashi, Takenori; Fukaya, Michie

PATENT ASSIGNEE(S):

Konica Co., Japan Eur. Pat. Appl., 61 pp. SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

bovine

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 328106	A2	19890816	EP 1989-102245		19890209
EP 328106	A3	19901219			
R: DE, GB					
JP 01308966	A	19891213	JP 1989-31530		19890209
JP 01308967	A	19891213	JP 1989-31531		19890209
PRIORITY APPLN. INFO.:			JP 1988-29632	Α	19880209
			JP 1988-29633·	Α	19880209

OTHER SOURCE(S): MARPAT 114:225167

Disclosed is an assay element and a method of assaying a target substance in a fluid sample. In this method, a) the target substance; b) a substance which specifically binds to the target substance, to which a biol. active substance which does not bind to the target substance is attached, or to which a substance which specifically binds to a biol. active substance which does not bind to the target substance is attached; c) a labeled substance which is the target substance or an analog thereof labeled with  $\beta$ -D-galactosidase, or which is a substance which specifically binds to the target substance, labeled with  $\beta$ -D-galactosidase; d) a substance which specifically binds to the biol. active substance and which does not bind to the target substance, or the biol. active substance, which is fixed to a carrier, which carrier exists in a porous reaction layer of an assay element; and e) a substance which specifically binds to  $\beta$ -D-galactosidase and which changes a signal originated from  $\beta$ -D-galactosidase, which is fixed to said carrier or another carrier which exists in a porous reaction layer of an assay element, are reacted, and the change of the signal from  $\beta\text{-D-galactosidase}$  is measured. Human IgG was determined by mixing the sample with bis(2-hydroxyethyl)iminotris(hydroxymethyl)methane, β-D-galactosidase-labeled human IgG, and biotin-bound anti-human IgG antibody and applying the mixture to an immunoassay element comprising a PET film coated with 1) a solution containing gelatin, Triton X-100,

1,2-bis(vinylsulfonyl)ethane, and H2O; 2) a solution containing p-aminophenylmercuric acetate-bound Avicel (microcryst. cellulose), Triton X-100, polyvinylpyrrolidone, 5-bromo-4-chloro-3-indolyl- $\beta$ -Dgalactopyranoside, 3,3'-(4,4'-biphenylene)-bis(2,5-diphenyl-2H-tetrazolium chloride), and n-BuOH; 3) a solution containing avidin-bound Avicel containing

serum albumin and sucrose, Triton X-100, polyvinylpyrrolidone, and n-BuOH;

and 4) a solution containing cellulose powder D, Triton X-100, polyvinylpyrrolidone, and n-BuOH. The element was incubated at  $37^{\circ}$ for 10 min and then the reflection d. at 546 nm was measured from the side of the support layer.

## => d L12 1-10 ibib abs

L12 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN

2007:33958 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 146:135595

Compositions and methods for providing a graded TITLE:

response in a protein, and therapeutic and other uses

INVENTOR(S): Graves, Barbara J.; Pufall, Miles; Lee, Gregory M.;

Mcintosh, Lawrence

PATENT ASSIGNEE(S): University of Utah Research Foundation, USA;

University of British Columbia

SOURCE: PCT Int. Appl., 29pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.					D	DATE			APPL	ICAT	ION	NO.		D.	ATE	
						-									_		
WO	2007	0058	67		A2		2007	0111	1	WO 2	006-	US26	038		2	0060	630
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚM,	KN,	KΡ,
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	ΤZ,	UA,	UG,
		US,	UZ,	VC,	VN,	ZA,	ZM,	zw									
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΗU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ.	MD,	RU,	TJ.	TM										

PRIORITY APPLN. INFO.: US 2005-695951P

P 20050630 The invention discloses compns. and methods which are of use for the graded control of proteins through modification of the post-translational state of the proteins. In particular, the methods provide for the subtle and gradual control of protein levels in direct contrast to the traditional theory of protein levels merely being "on" at one consistent level or completely "off." The ability to modify protein levels may be useful in the production of a variety of cell types, including whole animals or plants, or for therapeutic or laboratory research purposes. Addnl., the methods of the invention may be used to produce or inhibit particular proteins in patients suffering from diseases caused by the complete lack of a particular protein or an incorrect level of a protein.

```
L12 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
```

ACCESSION NUMBER:

2007:79558 CAPLUS

TITLE:

Trifunctional norrisolide probes for the

study of Golgi vesiculation

AUTHOR(S):

Guizzunti, Gianni; Brady, Thomas P.; Malhotra, Vivek;

Theodorakis, Emmanuel A.

CORPORATE SOURCE:

Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA, 92093-0358,

USA

SOURCE:

Bioorganic & Medicinal Chemistry Letters (2007),

17(2), 320-325

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Inspired by the effect of norrisolide on the Golgi complex, we synthesized norrisolide probes that contain: the perhydroindane core of the parent natural product for Golgi localization, a crosslinking unit (aryl azide or epoxide) for covalent binding to the target, and a tag (biotin or iodine) for subsequent target purification. We found that biotin -containing probes 14, 20 and 24 induced inefficient Golgi vesiculation. However, the iodinated probe 25 induced extensive and irreversible Golgi fragmentation. This probe can be used for the isolation of the cellular target of norrisolide.

REFERENCE COUNT:

54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1124832 CAPLUS

DOCUMENT NUMBER: 145:443804

TITLE: Amphiphilic polymers and methods of use thereof INVENTOR(S): Colton, Clark K.; Watterson, Arthur; Kumar, Rajesh;

Parmar, Virinder S.; Fisher, Robert; Kumar, Jayant

PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA

SOURCE: PCT Int. Appl., 127pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
PATENT NO.
                      KIND DATE
                                        APPLICATION NO.
                                                              DATE
                              -----
                                         -----
                              20061026 WO 2006-US14483
    WO 2006113666
                        A2
                                                               20060417
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
            KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
            MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
            SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
            VN, YU, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM
                              20061130
                                          US 2006-405012
    US 2006269479
                        A1
                                                                20060417
                                          US 2005-672533P
PRIORITY APPLN. INFO.:
                                                             P 20050419
                                          US 2005-672856P
                                                            P 20050420
                                          US 2005-732633P
                                                             P 20051103
```

AB The present invention relates to amphiphilic polymers, and micelles and compns. comprising the same, and their use in a variety of biol. settings, including imaging, targeting drugs, or a combination thereof for diagnostic and therapeutic purposes. A PEG oligomer, for example, is polymerized with a trifunctional linking mol. (di-Me 5-hydroxyisophthalate) using lipase B which leaves the phenolic hydroxy group available for further chemical reaction. The PEG may be further modified with perfluorododecanol, fluorescent probes, targeting peptides, etc. The resulting multimodal agent is used for imaging tumors, such as human epithelial cell adenocarcinomas which overexpress uMUC-1 antigen.

L12 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1228654 CAPLUS

DOCUMENT NUMBER: 145:501841

TITLE: Tri-functional nanospheres formed from mesoporous polymer, magnetic material, fluorescent dye and a

biomaterial coupled to the polymer

INVENTOR(S): Pang, Dai-Wen; Xie, Hai-Yan; Wang, Guo-Ping; Zhang,

Zhi-Ling; Song, Er-Qun; Shi, Yun-Bo

PATENT ASSIGNEE(S): Wuhan University, Peop. Rep. China; The Government of

the U.S as Represented by the Secretary of the Dept of

Health and Human Services

SOURCE: U.S. Pat. Appl. Publ., 18pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				-	
US 2006263906	A1	20061123	US 2005-135380		20050524
CN 1869692	A	20061129	CN 2005-10079227		20050523
PRIORITY APPLN. INFO.:			CN 2005-10079227	Α	20050523

Trifunctional nanoparticles have excellent fluorescence, magnetism, and cell recognition, which can be easily manipulated, tracked, and conveniently used to capture target cells. The surface-immobilized mols. of the TFNs might be optionally changed on demand for the purposes of bioanal., biomedical imaging, diagnosis, and the combinatorial screening of drugs. The nanoparticle is formed from a mesoporous polymer; a magnetic material adhering to the mesoporous polymer; a fluorescent dye adhering to the mesoporous polymer; and a biomaterial coupled to the mesoporous polymer, where the mesoporous polymer has been treated with hydrazine, and the biomaterial has been treated with an oxidizing agent.

L12 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:75114 CAPLUS

DOCUMENT NUMBER: 144:145994

Planar optical waveguide based sandwich assay sensors TITLE: and processes for the detection of biological targets

including protein markers, pathogens and cellular

APPLICATION NO.

DATE

debris

Martinez, Jennifer S.; Swanson, Basil I.; Grace, Karen INVENTOR(S):

M.; Grace, Wyane K.; Shreve, Andrew P.

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 15 pp. SOURCE:

KIND

CODEN: USXXCO

DATE

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

US 2006019244	A1	20060126	US 2005-172246	20050629
US 2006019321	A1	20060126	US 2005-172244	20050629
PRIORITY APPLN. INFO.:			US 2004-583911P P	20040629
AB An assay element is	descr	ibed includi	ng recognition ligands b	ound to a
film on a single mo	de plan	nar optical	waveguide, the film from	the group of
a membrane, a polym	erized	bilayer mem	brane, and a self-assemb	led monolayer
containing polyethy	lene gi	lycol or pol	ypropylene glycol groups	therein and an
assay process for d	etecti	ng the prese	nce of a biol. target is	described
including injecting	a bio	l. target-co	ntaining sample into a s	ensor cell
including the assay	eleme	nt, with the	recognition ligands ada	pted for
binding to selected	biol.	targets, ma	intaining the sample wit	hin the
sensor cell for tim	e suff:	icient for b	inding to occur between	selected
			he recognition ligands,	
			into the sensor cell; an	

the sample within the sensor cell with excitation light from the

waveguide, the excitation light provided by an evanescent field of the

single mode penetrating into the biol. target-containing sample to a distance of less than about 200 nm from the waveguide thereby exciting the fluorescent-label in any bound reporter ligand within a distance of less than about 200 nm from the waveguide and resulting in a detectable signal. Biotinylated capture antibodies were coupled through avidin/ streptavidin to biotinylated phospholipid bilayers composed of 1 % to 3 % biotin-phosphoethanolamine in a matrix of DOPC (1,2-Dioleoylsn-Glycero-3-Phosphocholine) and attached to the surface of planar optical waveguides. Alexa Fluor 532- or 647-labeled monoclonal antibodies specific for B. anthracis were used as reporter ligands. The performance of the immunoassay was evaluated by monitoring the response of the waveguide apparatus to varying concns. of Bacillus anthracis protective antigen.

L12 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1242827 CAPLUS

DOCUMENT NUMBER: 146:28352

TITLE: Water-soluble multi-biotin-containing

compounds

INVENTOR(S): Wilbur, D. Scott; Pathare, Pradip M.; Hamlin, Donald

K.; Wan, Feng

PATENT ASSIGNEE(S): University of Washington, USA

SOURCE: U.S., 98pp., Cont.-in-part of U.S. Ser. No. 324,267,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				-	
US 7141676	B1	20061128	US 2002-261040		20020930
US 2006228325	A1	20061012	US 2006-435963		20060517
PRIORITY APPLN. INFO.:			US 1996-11321P	P	19960208
			US 1997-798413	В2	19970207
			US 1999-324267	B2	19990602
			US 2002-261040	А3	20020930

AB Water-soluble discrete multi-biotin-containing compds. with ≥ 3 biotin moieties are disclosed. The water-soluble biotin -containing compds. may addnl. comprise ≥1 moieties that confer resistance to cleavage by biotinidase or that is cleavable in vitro or in vivo. The discrete multi-biotin-containing compds. may include a reactive moiety that provides a site for reaction with yet another moiety, such as a targeting, diagnostic or therapeutic functional moiety. Biotinylation reagents comprising water-soluble linker moieties are also disclosed and may addnl. comprise a biotinidase protective group. Methods for amplifying the number of sites for binding biotin-binding proteins at a selected target using multi-biotin compds. also are disclosed.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2006:367724 CAPLUS

DOCUMENT NUMBER: 145:6459

TITLE: Identification of the annexin A2 heterotetramer as a

receptor for the plasmin-induced signaling in human

peripheral monocytes

AUTHOR(S): Laumonnier, Yves; Syrovets, Tatiana; Burysek,

Ladislav; Simmet, Thomas

CORPORATE SOURCE: Department of Pharmacology of Natural Products and

Clinical Pharmacology, University of Ulm, Germany

SOURCE: Blood (2006), 107(8), 3342-3349

CODEN: BLOOAW; ISSN: 0006-4971 American Society of Hematology

PUBLISHER: Americar DOCUMENT TYPE: Journal LANGUAGE: English

We have previously demonstrated that plasmin acts as a potent proinflammatory activator of human peripheral monocytes. Here we identify the annexin A2 heterotetramer, composed of annexin A2 and S100AlO, as a receptor for the plasmin-induced signaling in human monocytes. Monocytes express the annexin A2 heterotetramer on the cell surface as shown by flow cytometry, fluorescence microscopy, and coimmunopptn. of biotinylated cell surface proteins. Binding of plasmin to annexin A2 and S100A10 on monocytes was verified by biotin transfer from plasmin labeled with a trifunctional crosslinker. Antibodies directed against annexin A2 or S100A10 inhibited the chemotaxis elicited by plasmin, but not that induced by fMLP. Further, down-regulation of annexin A2 or S100A10 in monocytes by antisense oligodeoxynucleotides impaired the chemotactic response to plasmin, but not that to fMLP. Antisense oligodeoxynucleotides similarly decreased the TNF- $\alpha$  release by plasmin-stimulated, but not by LPS-stimulated, monocytes. At the mol. level, stimulation with plasmin, but not with catalytically inactivated plasmin, induced cleavage of annexin A2 and dissociation of the heterotetramer complex. Substitution of lysine to alanine in position 27 abolished the cleavage of recombinant annexin A2 in vitro. Together, these data identify the annexin A2 heterotetramer as a signaling receptor activated by plasmin via proteolysis.

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2006:453922 CAPLUS

DOCUMENT NUMBER: 145:117200

TITLE: Design and synthesis of a biotin-tagged photoaffinity probe of paeoniflorin

AUTHOR(S): Qiu, Wen-Wei; Xu, Jie; Liu, Da-Zhi; Li, Jing-Ya; Ye,

Yang; Zhu, Xing-Zu; Li, Jia; Nan, Fa-Jun

CORPORATE SOURCE: Chinese National Center for Drug Screening, State Key

Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological

Sciences, Shanghai, 201203, Peop. Rep. China Bioorganic & Medicinal Chemistry Letters (2006),

16(12), 3306-3309

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

OTHER SOURCE(S): CASREACT 145:117200

AB A trifunctional probe (binding element-photoreactive

group-affinity tag) of natural product paeoniflorin was designed and synthesized based on the previous primary structure-activity relationship.

This new probe is a potential tool for labeling, purification, and

identification of the target proteins.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2006:756884 CAPLUS

DOCUMENT NUMBER: 145:331093

TITLE: Identifying an interaction site between MutH and the

C-terminal domain of MutL by crosslinking, affinity purification, chemical coding and mass spectrometry

AUTHOR(S): Ahrends, Robert; Kosinski, Jan; Kirsch, Dieter;

Manelyte, Laura; Giron-Monzon, Luis; Hummerich, Lars; Schulz, Oliver; Spengler, Bernhard; Friedhoff, Peter

CORPORATE SOURCE: Institut fuer Biochemie (FB 08), Justus-Liebig-

Universitaet, Giessen, D-35392, Germany

Nucleic Acids Research (2006), 34(10), 3169-3180

CODEN: NARHAD; ISSN: 0305-1048

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

To investigate protein-protein interaction sites in the DNA mismatch repair system the authors developed a crosslinking/mass spectrometry technique employing a com. available trifunctional crosslinker with a thiol-specific methanethiosulfonate group, a photoactivatable benzophenone moiety and a biotin affinity tag. The XACM approach combines photocrosslinking (X), in-solution digestion of the crosslinked mixts., affinity purification via the biotin handle (A), chemical coding of the crosslinked products (C) followed by MALDI-TOF mass spectrometry (M). The authors illustrate the feasibility of the method using a single-cysteine variant of the homodimeric DNA mismatch repair protein MutL. Moreover, the authors successfully applied this method to identify the photocrosslink formed between the single-cysteine MutH. variant A223C, labeled with the trifunctional crosslinker in the C-terminal helix and its activator protein MutL. The identified crosslinked MutL-peptide maps to a conserved surface patch of the MutL C-terminal dimerization domain. These observations are substantiated by addnl. mutational and chemical crosslinking studies. The authors' results shed light on the potential structures of the MutL holoenzyme and the MutH-MutL-DNA complex.

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2006:284754 CAPLUS

DOCUMENT NUMBER: 144:484013

TITLE: Design and synthesis of novel photoaffinity reagents

for labeling VEGF receptor tyrosine kinases

AUTHOR(S): Han, Sun-Young; Choi, Seo Hyun; Kim, Myung Hee; Lee,

Woo Ghil; Kim, Seong Hwan; Min, Yong Ki; Kim, Bum Tae Bio-Organic Science Division, Korea Research Institute

CORPORATE SOURCE: Bio-Organic Science Division, Korea Research Instit

of Chemical Technology, Daejeon, 305-600, S. Korea

SOURCE: Tetrahedron Letters (2006), 47(17), 2915-2919

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:484013

AB Novel biotin-tagged photoaffinity probes based on a

trifunctional tertiary amine scaffold were synthesized and

evaluated as vascular endothelial growth factor receptor-2 (VEGFR-2) inhibitors. Probes inhibit VEGF induced proliferation in HUVE cells, with IC50 values of 29.7, 33.3, and 37.7  $\mu$ M, resp. Moreover, we identified

the interaction of with VEGFR-2 in photoaffinity labeling experiment using HUVE

cells.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s L12 and toxin

L14 8 L12 AND TOXIN

=> d L14 1-8 ibib abs

L14 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1124832 CAPLUS

DOCUMENT NUMBER: 145:443804

TITLE: Amphiphilic polymers and methods of use thereof INVENTOR(S): Colton, Clark K.; Watterson, Arthur; Kumar, Rajesh;

Parmar, Virinder S.; Fisher, Robert; Kumar, Jayant

Massachusetts Institute of Technology, USA

SOURCE: PCT Int. Appl., 127pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PAT	PATENT NO.						KIND DATE				APPLICATION NO.						
WO	2006	1136	66		A2	-	2006	1026	1	WO 2	 006-i	JS14	483		2	0060	417
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒŹ,	CA,	CH,
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	ΚP,	KR,
		ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
		ΜZ,	NΑ,	NG,	NΙ,	NO,	ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
		SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	ΤZ,	UA,	UG,	US,	UZ,	VC,
		VN,	YU,	ZA,	ZM,	zw											
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM										
US	US 2006269479						2006	1130	US 2006-405012						2	0060	417
PRIORITY	PRIORITY APPLN. INFO.:									US 2	005-	6725	33P		P 20	0050	419
									US 2005-672856P						P 20	0050	420
									US 2005-732633P						P 20	0051	103

AB The present invention relates to amphiphilic polymers, and micelles and compns. comprising the same, and their use in a variety of biol. settings, including imaging, targeting drugs, or a combination thereof for diagnostic and therapeutic purposes. A PEG oligomer, for example, is polymerized with a trifunctional linking mol. (di-Me 5-hydroxyisophthalate) using lipase B which leaves the phenolic hydroxy group available for further chemical reaction. The PEG may be further modified with perfluorododecanol, fluorescent probes, targeting peptides, etc. The resulting multimodal agent is used for imaging tumors, such as human epithelial cell adenocarcinomas which overexpress uMUC-1 antigen.

```
L14 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
```

ACCESSION NUMBER:
DOCUMENT NUMBER:

2006:75114 CAPLUS 144:145994

TITLE:

Planar optical waveguide based sandwich assay sensors and processes for the detection of biological targets including protein markers, pathogens and cellular

debris

INVENTOR(S):

Martinez, Jennifer S.; Swanson, Basil I.; Grace, Karen

M.; Grace, Wyane K.; Shreve, Andrew P.

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE		
US 2006019244	A1	20060126	US 2005-172246		20050629		
US 2006019321	A1	20060126	US 2005-172244		20050629		
PRIORITY APPLN. INFO.:			US 2004-583911P	P	20040629		
7D 7		1		•			

AB An assay element is described including recognition ligands bound to a film on a single mode planar optical waveguide, the film from the group of a membrane, a polymerized bilayer membrane, and a self-assembled monolayer

containing polyethylene glycol or polypropylene glycol groups therein and an assay process for detecting the presence of a biol. target is described including injecting a biol. target-containing sample into a sensor cell including the assay element, with the recognition ligands adapted for binding to selected biol. targets, maintaining the sample within the sensor cell for time sufficient for binding to occur between selected biol. targets within the sample and the recognition ligands, injecting a solution including a reporter ligand into the sensor cell; and, interrogating the sample within the sensor cell with excitation light from the waveguide, the excitation light provided by an evanescent field of the single mode penetrating into the biol. target-containing sample to a distance of less than about 200 nm from the waveguide thereby exciting the fluorescent-label in any bound reporter ligand within a distance of less than about 200 nm from the waveguide and resulting in a detectable signal. Biotinylated capture antibodies were coupled through avidin/ streptavidin to biotinylated phospholipid bilayers composed of 1 % to 3 % biotin-phosphoethanolamine in a matrix of DOPC (1,2-Dioleoylsn-Glycero-3-Phosphocholine) and attached to the surface of planar optical waveguides. Alexa Fluor 532- or 647-labeled monoclonal antibodies specific for B. anthracis were used as reporter ligands. The performance of the immunoassay was evaluated by monitoring the response of the waveguide apparatus to varying concns. of Bacillus anthracis protective antigen.

L14 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:493522 CAPLUS

DOCUMENT NUMBER: 143:32224

TITLE: Immunoconjugates for targeting of ERB antigens

INVENTOR(S): Sandberg, Bengt E. B.; Nilsson, Rune

PATENT ASSIGNEE(S): Mitra Medical AB, Swed. SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.						KIND DATE							DATE					
	WO	2005	0514	 24		A1	_	2005	0609	1		004-				2	0041	 126	
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
								DE,											
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	sc,	SD,	SE,	SG,	SK,	SL,	SY,	
			ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW	
		RW:			-	-	-	MW,		•	-					•			
		•	AZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
			EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	
			SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	
			NE,	SN,	TD,	TG													
	ΑU	2004	2929	33		A1		2005	0609		AU 2	004-	2929	33		2	0041	126	
	CA	2547	435			A1		2005	0609	CA 2004-2547435						20041126			
	EΡ	1708	750			A1		2006	1011		EP 2	004-	8004	10		2	0041	126	
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,	SI,	FI,	RO,	CY,	TR,	BG,	CZ,	EE,	ΗU,	PL,	SK,	IS				
	CN	1905	900.			Α		2007	0131		CN 2	004-	8004	1118		2	0041	126	
	NO	2006	0024	10		Α		2006	0824		NO 2	006-	2410			2	0060	526	
PRIO	RIT	Y APP	LN.	INFO	. :						SE 2	003-	3229		Ž	A 2	0031	128	
											US 2	003-	5257	03P		P 2	0031	128	
										•	WO 2	004-	SE17	53	I	W 2	0041	126	
מ ע	70 /			~~~	~		a 1 a	42	<b>c</b>		_ 7		7 4 1-						

AB A conjugate comprising a) a trifunctional crosslinking moiety, to which is coupled b) an affinity ligand via a linker 1, c) a cytotoxic agent, optionally via a linker 2, and d) an anti Erb antibody or variants

thereof having the ability to bind to Erb antigens expressed on mammalian tumor surfaces with an affinity-binding constant of at least 5x106M-1, wherein the affinity ligand is biotin, or a biotin

derivative having essentially the same binding function to avidin or

streptavidin as biotin, wherein stability towards enzymic

cleavage of the biotinamide bond has been introduced in linker 1.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:60754 CAPLUS

Correction of: 2004:1036571

DOCUMENT NUMBER: 142:233342

Correction of: 142:16836

TITLE: Sequences of human schizophrenia related genes and use

for diagnosis, prognosis and therapy

INVENTOR(S):

): Liew, Choong-Chin

PATENT ASSIGNEE(S):

Chondrogene Limited, Can.

SOURCE:

U.S. Pat. Appl. Publ., 156 pp., Cont.-in-part of U.S.

Ser. No. 802,875.

CODEN: USXXCO

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 32

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PATENT NO.  US 2004241727 US 2004014059 US 2007031841 US 2006134635 US 2005191637 US 2005196762 US 2005196763 US 2005196764 US 2005208505 US 2005208519 PRIORITY APPLN. INFO.:	AI A1	DATE 20041202 20040122 20070208 20060622 20050901 20050908 20050908 20050922 20050922	US 2004-812731 US 2002-268730 US 2003-601518 US 2004-802875 US 2004-803737 US 2004-803759 US 2004-803857 US 2004-803858 US 2004-803648 US 2004-989191 US 1999-115125P US 2000-477148 US 2002-268730 US 2003-601518 US 2004-802875 US 2001-271955P US 2001-275017P US 2001-305340P US 2002-85783	20040330 20021009 20030620 20040312 20040318 20040318 20040318 20040318 20040318 20040318 20041115 P 19990106 B1 20000104 A2 20021009 A2 20030620 A2 20040312 P 20010312 P 20010713 A2 20020228
AD The control in the base of the control in the base of the base			US 2004-812731 WO 2004-US20836	A2 20040330 A2 20040621

The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing and monitoring diseases using gene-specific and/or tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the expression levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen. [This abstract record is one of 3 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L14 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:531387 CAPLUS

DOCUMENT NUMBER: 141:94296

TITLE: Anti-lymphoma targeting agents with effector and

affinity functions linked by a trifunctional

reagent

INVENTOR(S): Sandberg, Bengt; Nilsson, Rune
PATENT ASSIGNEE(S): Mitra Medical Technology Ab, Swed.

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
DATE
    PATENT NO.
                                        APPLICATION NO.
                    KIND
                             20040701 WO 2003-SE1949 20031212
                       ----
    -----
    WO 2004054615
                        A1
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
            NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
            TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
                               20040701 CA 2003-2509103 20031212
20040709 AU 2003-287131 20031212
20050907 EP 2003-781200 20031212
    CA 2509103
                        A1
    AU 2003287131
                        A1
                                                               20031212
                    · A1
    EP 1569690
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                                        BR 2003-16599 20031212
    BR 2003016599 A
                            20051004
    CN 1738645
                        Α
                               20060222
                                          CN 2003-80108743
                                                                  20031212
                       T 20060406
A 20050912
A1 20061005
                                         JP 2004-560221
    JP 2006511532
                                                                 20031212
    NO 2005002842
                                         NO 2005-2842
                                                                 20050613
                                          US 2006-538669
                                                                 20060309
    US 2006222588
PRIORITY APPLN. INFO.:
                                           SE 2002-3731
                                                             A 20021213
                                                           P 20021213
W 20031212
                                           US 2002-433012P
                                           WO 2003-SE1949
```

AB Disclosed are a medical agent comprising a reagent conjugated to an anti-lymphoma antibody, as well as a kit containing the medical agent, use of the medical agent, and a method for the treatment of lymphoma. The reagent may comprise an effector, e.g. an antitumor agent or a diagnostic marker, and an affinity ligand enabling extracorporeal clearance of the agent. The three components are bound by a trifunctional linker. For example, rituximab (monoclonal antibody) was treated with 3-(13'-thioureabenzylDOTA)trioxadiamine-1-(13'-biotin -Asp-OH)trioxadiamine-5-isothiocyanato-aminoisophthalate and mixed with llInCl3 and DTPA to obtain a conjugate.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN.

ACCESSION NUMBER: 2001:923565 CAPLUS

DOCUMENT NUMBER: 136:42919

TITLE: Biotin derivatives for an extracorporeal

device

INVENTOR(S): Sandberg, Bengt; Wilbur, Scott; Nilsson, Rune
PATENT ASSIGNEE(S): Mitra Medical Technology AB, Swed.; University of

Washington

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

## PATENT INFORMATION:

```
PATENT NO.
                      KIND
                             DATE
                                        APPLICATION NO.
                                                               DATE
                                        ______
    _____
                      ----
                                                               _____
    WO 2001095857
                      A2
                              20011220 WO 2001-SE1374
                                                               20010618
    WO 2001095857
                       A3
                              20020328
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
            UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    US 2002159994
                       A1
                              20021031
                                       US 2001-881213
    CA 2412495
                        A1
                              20011220
                                        CA 2001-2412495
                                                               20010618
    AU 2001074761
                       Α5
                              20011224
                                        AU 2001-74761
                                                              20010618
                              20030312
                                        EP 2001-941404
    EP 1289563
                       A2
                                                              20010618
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                    A
    BR 2001011726
                              20030527
                                       BR 2001-11726
                                                               20010618
                                                               20010618
    JP 2004503299
                       {f T}
                              20040205
                                        JP 2002-510039
                      A2
    HU 200401953
                              20041228
                                        HU 2004-1953
                                                              20010618
                      C2 20060720
A 20030214
A1 20040318
    RU 2279896
                              20060720
                                        RU 2003-101060
                                                              20010618
    NO 2002005931
                              20030214
                                        NO 2002-5931
                                                               20021211
    US 2004052784
                                         US 2003-311150
                                                               20030423
PRIORITY APPLN. INFO.:
                                         SE 2000-2287
                                                           A 20000616
                                                          P 20000707
W 20010618
                                         US 2000-216625P
                                         WO 2001-SE1374
```

AB A method for the conditioning of an extracorporeal device is described, as well as a method for extracorporeal extraction of toxic material from mammalian body fluids in connection with diagnosis or treatment of a mammalian condition or disease. The methods comprise (i) a solution containing a reagent comprising biotin moieties, such as natural biotin or its derivs., and a toxin-binding moiety, (ii) linkers and a trifunctional crosslinking moiety, and (ii) an extracorporeal device comprising said reagent. For example, a dibiotin compound, 1-isothiocyanato-3,5-bis-(13'-biotinamidyl-4',7',10'-trioxatridecanamidyl)-aminoisophthalate was prepared and conjugated with a toxin-binding mol., i.e., monoclonal antibody 53-6A2. A dibiotin-toxin -binding conjugate was used for conditioning of an avidin-agarose column suitable for removal of toxins from blood.

```
L14 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
```

ACCESSION NUMBER: 2000:35037 CAPLUS

DOCUMENT NUMBER: 132:90367

TITLE: Trifunctional reagent for conjugation to a

biomolecule for use in diagnosis and therapy

INVENTOR(S): Wilbur, D. Scott; Sandberg, Bengt E. B.

PATENT ASSIGNEE(S): University of Washington, USA; Mitra Medical

Technology AB

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT N	KIND DATE				APPLICATION NO.							DATE				
WO 20000	A1		2000	20000113			WO 1999-SE1241					19990707				
W:	AE, AL	, AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	
	DE, DK															

```
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    WO 2000002050
                         Α1
                               20000113
                                           WO 1998-SE1345
            AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
            MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, ML, MR, NE, SN, TD, TG
                                20000113
                                           CA 1999-2336739
     CA 2336739
                         A1
                                                                   19990707
                                20000124
                                            AU 1999-50767
    AU 9950767
                          Α
                                                                   19990707
     EP 1095274
                          A1
                                20010502
                                           EP 1999-935251
                                                                   19990707
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                            JP 2000-558395
     JP 2002519440
                          \mathbf{T}
                                20020702
                                                                    19990707
     US 2001023288
                          Α1
                                20010920
                                            US 2000-750280
                                                                    20001229
     NO 2001000021
                                20010307
                                            NO 2001-21
                                                                    20010103
                          Α
PRIORITY APPLN. INFO.:
                                            WO 1998-SE1345
                                                                A 19980707
                                            WO 1999-SE1241
                                                                W 19990707
     A reagent for conjugation to a biomol. for diagnosis and treatment of
AB
     human and animal conditions and diseases is described, wherein the reagent
     is a single mol. with at least three functional parts and a) wherein a
     trifunctional crosslinking moiety is coupled to b) an affinity
     ligand via a linker 1, said affinity ligand being capable of binding with
     another mol. having affinity for said ligand; to c) an effector agent,
     optionally via a linker 2, said effector agent exerting its effects on
     cells, tissues and/or humorous mols. in vivo or ex vivo; and to d) a
     biomol. reactive moiety, optionally via a linker 3, said moiety being
     capable of forming a bond between the reagent and the biomol. The
     affinity ligand is especially biotin or a biotin derivative The
     effector agent is a toxin, an enzyme capable of converting a
     prodrug to an active drug, an immunosuppressant, an immunostimulant, or a
     radionuclide-binding agent, with or without the radionuclide.
                               THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                         13
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L14 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
                         2000:35036 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         132:90366
TITLE:
                         Trifunctional reagent for conjugation to a
                         biomolecule for use in diagnosis and therapy
                         Wilbur, D. Scott; Sandberg, Bengt E. B.
INVENTOR(S):
                         University of Washington, USA; Mitra Medical
PATENT ASSIGNEE(S):
                         Technology AB
```

PCT Int. Appl., 41 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

LANGUAGE:

```
APPLICATION NO.
PATENT NO.
                   KIND
                          DATE
                                                            DATE
                                      _____
WO 2000002050
                    Α1
                          20000113
                                     WO 1998-SE1345
                                                            19980707
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
       DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE,
       KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
       MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
```

```
TT, UA, UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, ML, MR, NE, SN, TD, TG
    AU 9883663
                                           AU 1998-83663
                          Α
                                20000124
                                                                    19980707
     CA 2336739
                          A1
                                20000113
                                            CA 1999-2336739
                                                                    19990707
    WO 2000002051
                          A1
                                20000113
                                            WO 1999-SE1241
                                                                    19990707
             AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9950767
                                20000124
                                           AU 1999-50767
                                                                    19990707
                         Α
                                20010502
                                           EP 1999-935251
                                                                    19990707
     EP 1095274
                          A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2002519440
                          \mathbf{T}
                                20020702
                                            JP 2000-558395
                                                                    19990707
                                20010307
                                            NO 2001-21
     NO 2001000021
                          Α
                                                                    20010103
     US 2005271673
                                20051208
                                            US 2005-190955
                          Α1
                                                                    20050728
PRIORITY APPLN. INFO.:
                                            WO 1998-SE1345
                                                                A 19980707
                                            WO 1999-SE1241
                                                                W 19990707
                                            US 2000-519998
                                                                B1 20000306
AB
     A reagent for conjugation to a biomol. for diagnosis and treatment of
     human and animal conditions and diseases is described, wherein the reagent
     is a single mol. with at least three functional parts and a) wherein a
     trifunctional crosslinking moiety is coupled to b) an affinity
     ligand via a linker 1, said affinity ligand being capable of binding with
     another mol. having affinity for said ligand; to c) an effector agent,
     optionally via a linker 2, said effector agent exerting its effects on
     cells, tissues and/or humorous mols. in vivo or ex vivo; and to d) a
     biomol. reactive moiety, optionally via a linker 3, said moiety being
     capable of forming a bond between the reagent and the biomol. The
     affinity ligand is especially biotin or a biotin derivative The
     effector agent is a toxin, an enzyme capable of converting a
     prodrug to an active drug, an immunosuppressant, an immunostimulant, or a
     radionuclide-binding agent, with or without the radionuclide.
REFERENCE COUNT:
                               THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
                         11
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> s extracorporeal
T.15
         72238 EXTRACORPOREAL
             6 L12 AND L15
```

```
=> s L12 and L15
L16
=> d 1-6 L16 ibib abs
L16 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2005:1019038 CAPLUS
DOCUMENT NUMBER:
                         144:145495
TITLE:
                         A novel platform for radioimmunotherapy:
                         extracorporeal depletion of biotinylated and
                         90Y-labeled rituximab in patients with refractory
                         B-cell lymphoma
AUTHOR(S):
                         Linden, Ola; Kurkus, Jan; Garkavij, Michael;
                         Cavallin-Staahl, Eva; Ljungberg, Michael; Nilsson,
                         Rune; Ohlsson, Tomas; Sandberg, Bengt; Strand,
                         Sven-Erik; Tennvall, Jan
CORPORATE SOURCE:
                         Department of Oncology, Lund University, Lund, Swed.
SOURCE:
                         Cancer Biotherapy & Radiopharmaceuticals (2005),
```

20(4), 457-466

CODEN: CBRAFJ; ISSN: 1084-9785

Mary Ann Liebert, Inc.

DOCUMENT TYPE: LANGUAGE:

PUBLISHER:

Journal English

Radioimmunotherapy is limited by the absorbed dose to radiosensitive organs. Removal of circulating radiolabeled MAbs after tumor tissue has been optimally targeted and should permit the administration of higher radioactivity to patients, resulting in a higher absorbed tumor dose. A novel "extracorporeal affinity adsorption treatment" (ECAT) device (MitraDep) was tested, with which biotinylated and radiolabeled MAbs can be removed from the circulation by passing whole blood over a filter coated with avidin. The antibodies were simultaneously radiolabeled and biotinylated using a trifunctional moiety comprising DOTA and biotin. Eight patients-all but 1 of whom with aggressive or mantle cell B-cell lymphoma-who had failed to respond to standard therapies received infusions of 250 mg/m2 cold rituximab and 150 MBq 111In-rituximab-biotin for immunoscintigraphy. A week later, the patients were treated with another 250 mg/m2 rituximab followed by 111In/-90Y-rituximab-biotin (11 or 15 90Y MBq/kg). ECAT was performed 48 h later. All 8 patients receiving 111In-rituximabbiotin showed tumor uptake. Seven patients received radioimmunotherapy and subsequent ECAT. The mean depletion of 90Y-rituximab-biotin in whole blood after ECAT was 96%, in the whole body 49%, in the lungs 62%, and in the liver and kidneys 40%. No effects on patients' vital signs and no adverse effects on hematol. or coagulation parameters was observed during the ECAT procedure. dose-escalation study is initiated.

REFERENCE COUNT:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

26

ACCESSION NUMBER:

2004:531387 CAPLUS

DOCUMENT NUMBER:

141:94296

TITLE:

Anti-lymphoma targeting agents with effector and

affinity functions linked by a trifunctional

reagent

INVENTOR(S):

Sandberg, Bengt; Nilsson, Rune Mitra Medical Technology Ab, Swed.

PATENT ASSIGNEE(S): SOURCE:

PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND		DATE		APPLICATION NO.						DATE				
WO	WO 2004054615				A1 20040701			WO 2003-SE1949						20031212				
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	ΗU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG
CA	2509	103			A1	:	2004	0701	CA 2003-2509103						20	0031	212	
ΑU	2003	2871	31		A1		2004	0709	1	AU 21	003-	2871	31		20	0031	212	
EΡ	2 1569690			A1 20050907			EP 2003-781200						20031212					
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK		

BR 2003016599	Α	20051004	BR	2003-16599		20031212
CN 1738645	Α	20060222	CN	2003-80108743		20031212
JP 2006511532	T	20060406	JP	2004-560221		20031212
NO 2005002842	Α	20050912	NO	2005-2842	•	20050613
US 2006222588	A1	20061005	US	2006-538669		20060309
PRIORITY APPLN. INFO.:			SE	2002-3731	Α	20021213
			US	2002-433012P	P	20021213
			WO	2003-SE1949	W	20031212

Disclosed are a medical agent comprising a reagent conjugated to an AB anti-lymphoma antibody, as well as a kit containing the medical agent, use of the medical agent, and a method for the treatment of lymphoma. The reagent may comprise an effector, e.g. an antitumor agent or a diagnostic marker, and an affinity ligand enabling extracorporeal clearance of the agent. The three components are bound by a trifunctional linker. For example, rituximab (monoclonal antibody) was treated with 3-(13'-thioureabenzylDOTA)trioxadiamine-1-(13''-biotin -Asp-OH)trioxadiamine-5-isothiocyanato-aminoisophthalate and mixed with

111InCl3 and DTPA to obtain a conjugate.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:523951 CAPLUS

DOCUMENT NUMBER: 137:228855

TITLE: Trifunctional conjugation reagents. Reagents

that contain a biotin and a radiometal chelation moiety for application to extracorporeal affinity adsorption of

radiolabeled antibodies

AUTHOR(S): Wilbur, D. Scott; Chyan, Ming-Kuan; Hamlin, Donald K.;

Kegley, Brian B.; Nilsson, Rune; Sandberg, Bengt E.

B.; Brechbiel, Martin

Department of Radiation Oncology, University of CORPORATE SOURCE:

Washington, Seattle, WA, 98195, USA

Bioconjugate Chemistry (2002), 13(5), 1079-1092 SOURCE:

CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

A method of removing radiolabeled monoclonal antibodies (mAbs) from blood using a device external to the body, termed extracorporeal affinity-adsorption (EAA), is being evaluated as a means of decreasing irradiation of noncancerous tissues in therapy protocols. The EAA device uses an avidin column to capture biotinylated-radiolabeled mAbs from circulated In this investigation, three trifunctional reagents have been developed to minimize the potential deleterious effect on antigen binding brought about by the combination of radiolabeling and biotinylation of mAbs required in the EAA approach. The studies focused on radiolabeling with 111In and 90Y, so the chelates CHX-A''-DTPA and DOTA, which form stable attachments to these radionuclides, were incorporated in the trifunctional reagents. The first trifunctional reagent prepared did not incorporate a group to block the biotin cleaving enzyme biotinidase, but the two subsequent reagents coupled aspartic acid to the biotin carboxylate for that purpose. All three reagents used 4,7,10-trioxa-1,13-tridecanediamine as water-soluble spacers between an aminoisophthalate core and the biotin or chelation group. The mAb conjugates were radioiodinated to evaluate cell binding as a function of substitution. Radioiodination was used so that a direct comparison with unmodified mAb could be made. Evaluation of the number of conjugates per antibody vs. cell binding immunoreactivities indicated that minimizing the number of conjugates was best. Interestingly, a decrease of radioiodination yield as a function of the number of isothiocyanate containing conjugates per mAb was noted. The decreased yields were presumably due to the presence of thiourea

functionality formed in the conjugation reaction. Radiolabeling with 111In and 90Y was facile at room temperature for conjugates containing the CHX-A'',

but elevated temperature (e.g., 45°) was required to obtain good yields with the DOTA chelate. Stability of 90Y labeled mAb in serum, and when challenged with 10 mM EDTA, was high. However, challenging the 90Y labeled mAb with 10 mM DTPA demonstrated high stability for the DOTA containing conjugate, but low stability for the CHX-A'' containing conjugate. Thus, the choice between these two chelating moieties might be made on requirements for facile and gentle labeling vs. very high in vivo stability. Application of the trifunctional biotinylation reagents to the

blood clearance of labeled antibodies in EAA is under investigation. The new reagents may also be useful for other applications.

REFERENCE COUNT:

62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:923565 CAPLUS

DOCUMENT NUMBER:

136:42919

TITLE:

Biotin derivatives for an

extracorporeal device

INVENTOR(S): PATENT ASSIGNEE(S):

Sandberg, Bengt; Wilbur, Scott; Nilsson, Rune Mitra Medical Technology AB, Swed.; University of

Washington

SOURCE:

PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.						KIND DATE				APPI	JICAT	ION :	DATE					
		WO 2001095857 WO 2001095857								WO 2	2001-	SE13		20010618					
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ.,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	
												MW,							
			RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	ΤZ,	UA,	UG,	US,	
			UZ,	VN,	YU,	ZA,	zw												
		RW:	-	-	-	-		-	-	-		ΤZ,	-	-	-		-	-	
												LU,					TR,	BF,	
												MR,							
		2002																	
								20011220											
							A5 20011224												
	EΡ	1289								EP 2001-941404									
		R:										IT,	LI,	LU,	NL,	SE,	MC,	PT,	
					•			RO,			•								
	BR	2001	0117	26		Α						2001-				0010			
		2004										2002-					0010		
	HU	2004	0195	3		A2						2004-					0010		
		2279				C2		2006				2003-					0010		
		2002						2003				2002-					0021		
		2004				A1		2004	0318			2003-				_	0030		
PRIO	RITY	APP	LN.	INFO	.:							2000-				_	0000		
												2000-					0000	-	
											WO 2	2001-	SE13	74	I	W 2	0010	618	

A method for the conditioning of an extracorporeal device is AB described, as well as a method for extracorporeal extraction of toxic material from mammalian body fluids in connection with diagnosis or treatment of a mammalian condition or disease. The methods comprise (i) a solution containing a reagent comprising biotin moieties, such as

natural biotin or its derivs., and a toxin-binding moiety, (ii) linkers and a trifunctional crosslinking moiety, and (ii) an extracorporeal device comprising said reagent. For example, a dibiotin compound, 1-isothiocyanato-3,5-bis-(13'-biotinamidyl-4',7',10'-trioxatridecanamidyl)-aminoisophthalate was prepared and conjugated with a toxin-binding mol., i.e., monoclonal antibody 53-6A2. A dibiotin-toxin-binding conjugate was used for conditioning of an avidin-agarose column suitable for removal of toxins from blood.

L16 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:35037 CAPLUS

DOCUMENT NUMBER: 132:90367

TITLE: Trifunctional reagent for conjugation to a

biomolecule for use in diagnosis and therapy

INVENTOR(S): Wilbur, D. Scott; Sandberg, Bengt E. B.

PATENT ASSIGNEE(S): University of Washington, USA; Mitra Medical

Technology AB

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: Er FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

```
APPLICATION NO.
     PATENT NO.
                        KIND
                               DATE
                               ------ 20000113 WO 1999-SE1241 19990707
     _____
                        ----
    WO 2000002051
                        A1
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    WO 2000002050
                        A1 20000113 WO 1998-SE1345
                                                                 19980707
            AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE,
            KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
            MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
            TT, UA, UG, US, UZ, VN, YU, ZW
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, ML, MR, NE, SN, TD, TG
    CA 2336739
                        Α1
                               20000113
                                        CA 1999-2336739
                                                                 19990707
                                         AU 1999-50767
    AU 9950767
                        Α
                               20000124
                                                                 19990707
                                        EP 1999-935251
    EP 1095274
                        Α1
                               20010502
                                                                19990707
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
     JP 2002519440
                     \mathbf{T}
                               20020702
                                           JP 2000-558395
                                                                 19990707
    US 2001023288
                         A1
                               20010920
                                          US 2000-750280
                                                                 20001229
    NO 2001000021
                        Α
                               20010307
                                          NO 2001-21
                                                                 20010103
                                                            A 19980707
W 19990707
PRIORITY APPLN. INFO.:
                                           WO 1998-SE1345
                                           WO 1999-SE1241
```

AB A reagent for conjugation to a biomol. for diagnosis and treatment of human and animal conditions and diseases is described, wherein the reagent is a single mol. with at least three functional parts and a) wherein a trifunctional crosslinking moiety is coupled to b) an affinity ligand via a linker 1, said affinity ligand being capable of binding with another mol. having affinity for said ligand; to c) an effector agent, optionally via a linker 2, said effector agent exerting its effects on cells, tissues and/or humorous mols. in vivo or ex vivo; and to d) a biomol. reactive moiety, optionally via a linker 3, said moiety being capable of forming a bond between the reagent and the biomol. The

affinity ligand is especially biotin or a biotin derivative The effector agent is a toxin, an enzyme capable of converting a prodrug to an active drug, an immunosuppressant, an immunostimulant, or a radionuclide-binding agent, with or without the radionuclide.

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 13 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:35036 CAPLUS

DOCUMENT NUMBER:

132:90366

TITLE:

Trifunctional reagent for conjugation to a biomolecule for use in diagnosis and therapy

INVENTOR(S):

Wilbur, D. Scott; Sandberg, Bengt E. B. University of Washington, USA; Mitra Medical

Technology AB

SOURCE:

PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

```
PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                                DATE
                                          -----
                       ----
                              -----
    WO 2000002050
                        A1
                               20000113 WO 1998-SE1345
                                                                19980707
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE,
            KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
            MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
            TT, UA, UG, US, UZ, VN, YU, ZW
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, ML, MR, NE, SN, TD, TG
                               20000124
                                        AU 1998-83663
    AU 9883663
                        Α
                                                                 19980707
                                         CA 1999-2336739
    CA 2336739
                               20000113
                                                                19990707
                        Α1
                                         WO 1999-SE1241
    WO 2000002051
                               20000113
                        Α1
                                                                19990707
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    AU 9950767
                               20000124
                                        AU 1999-50767
                                                                 19990707
                        Α
                                         EP 1999-935251
    EP 1095274
                        Α1
                               20010502
                                                                19990707
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2002519440
                               20020702
                                          JP 2000-558395
                        Т
                                                                 19990707
    NO 2001000021
                               20010307
                                          NO 2001-21
                        Α
                                                                 20010103
                                          US 2005-190955
    US 2005271673
                               20051208
                        Α1
                                                                 20050728
                                          WO 1998-SE1345
                                                             A 19980707
PRIORITY APPLN. INFO.:
                                                            W 19990707
                                          WO 1999-SE1241
                                          US 2000-519998
                                                             . B1 20000306
```

A reagent for conjugation to a biomol. for diagnosis and treatment of AB human and animal conditions and diseases is described, wherein the reagent is a single mol. with at least three functional parts and a) wherein a trifunctional crosslinking moiety is coupled to b) an affinity ligand via a linker 1, said affinity ligand being capable of binding with another mol. having affinity for said ligand; to c) an effector agent, optionally via a linker 2, said effector agent exerting its effects on cells, tissues and/or humorous mols. in vivo or ex vivo; and to d) a biomol. reactive moiety, optionally via a linker 3, said moiety being capable of forming a bond between the reagent and the biomol. The

affinity ligand is especially biotin or a biotin derivative The effector agent is a toxin, an enzyme capable of converting a prodrug to an active drug, an immunosuppressant, an immunostimulant, or a radionuclide-binding agent, with or without the radionuclide.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT